DUST REDUCTION IN AN ELECTRONIC INDUSTRY THROUGH TRIZ METHODOLOGY

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To my beloved husband Muhammad Rais,

my parents Zaharatol Hayat and Ahmad Nizar

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ABSTRACT

The purpose of this project is to reduce dust in electronics products during assembly process. The used of TRIZ concept will improve the process of assembly qualitatively that eliminating the contradiction problem that occurred during the process of improving process. Multimeter products which is has display was selected as a case study to evaluate the process. TRIZ tools 40 Incentive Principles were used to reduce the dust on the display during assembly process. From the proposed solution idea, the results show that clean bench has been selected to control dust at Assembly 1 station. Therefore, results were compared between before and after implementation of clean bench and it show that increasing of yield thus meet the target of yield. Furthermore, the successful of this case study show that TRIZ can be powerful tool to solve a problem.

ABSTRAK

Tujuan projek ini adalah untuk mengurangkan habuk dalam produk elektronik semasa proses pemasangan. Konsep TRIZ digunakan untuk meningkatkan proses pemasangan secara kualitatif yang menghapuskan masalah percanggahan yang berlaku semasa proses proses bertambah baik. Produk Multimeter yang mempunyai paparan telah dipilih sebagai kajian kes untuk menilai proses. Alat TRIZ 40 Prinsip Insentif telah digunakan untuk mengurangkan habuk di paparan semasa proses pemasangan. Hasil dari idea penyelesaian yang dicadangkan itu, keputusan menunjukkan bahawa ‘Clean bench’ telah dipilih untuk mengawal habuk pada stesen Pemasangan 1 . Oleh itu, keputusan dibandingkan antara sebelum dan selepas pelaksanaan dan ia menunjukkan bahawa peningkatan hasil itu memenuhi sasaran. Tambahan pula, kejayaan kajian kes ini menunjukkan bahawa TRIZ boleh menjadi alat yang mampu untuk menyelesaikan masalah.